



# SAFETY DATA SHEET

Issue Date 01-Jun-2015

Revision Date 09-Jan-2018

Version 4

## 1. IDENTIFICATION

### Product identifier

**Product Name** REFLECTIVE BASE

### Other means of identification

**Product Code** PORF9070

**Synonyms** PORF907001, PORF907003, PORF907004, PORF907005, PORF907007, PORF907008, PORF907009, PORF907010, PORF907012, PORF907013, PORF907014, PORF907015, PORF907016, PORF907017, PORF907019, PORF907020, PORF907021, PORF907022, PORF907023, PORF907033, PORF907035, PORF907055

### Recommended use of the chemical and restrictions on use

**Recommended Use** Textile ink. Restricted to professional users.

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Rutland Group  
10021 Rodney Street  
Pineville, NC 28134  
Tel: 704-553-0046

**E-mail address** product\_safety@rutlandinc.com

### Emergency telephone number

**Emergency Telephone** INFOTRAC 1-352-323-3500

**2. HAZARDS IDENTIFICATION**

**Classification**

**OSHA Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Label elements**

**Emergency Overview**

The product contains no substances which at their given concentration, are considered to be hazardous to health

<b>Appearance</b> viscous	<b>Physical state</b> liquid	<b>Odor</b> Slight
---------------------------	------------------------------	--------------------

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Not applicable

Unknown acute toxicity                      18.9% of the mixture has not undergone testing for acute toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Chemical Name	CAS No.	Weight-%	Trade Secret
TITANIUM DIOXIDE	13463-67-7	10 - 30	*
DIETHYLENE GLYCOL	111-46-6	1 - 5	*
CALCINED KAOLIN CLAY	66402-68-4	1 - 5	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES**

**Description of first aid measures**

<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	Remove to fresh air.
<b>Ingestion</b>	Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**

No information available.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**

**Environmental precautions** See section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

---

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**                      Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**                      Keep containers tightly closed in a dry, cool and well-ventilated place  
Store at temperatures not exceeding 35 °C/ 95 °F

**Incompatible materials**                      None known based on information supplied.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> total dust	IDLH: 5000 mg/m <sup>3</sup>
CALCINED KAOLIN CLAY 66402-68-4	STEL: 10 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> Zr TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	TWA: 5 mg/m <sup>3</sup> Zr (vacated) TWA: 5 mg/m <sup>3</sup> Zr (vacated) STEL: 10 mg/m <sup>3</sup> Zr	IDLH: 25 mg/m <sup>3</sup> Zr TWA: 5 mg/m <sup>3</sup> except Zirconium tetrachloride Zr STEL: 10 mg/m <sup>3</sup> Zr

NIOSH IDLH *Immediately Dangerous to Life or Health*

Chemical Name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 3 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>
CALCINED KAOLIN CLAY 66402-68-4	TWA: 5 mg/m <sup>3</sup> TWA: 0.2 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> TWA: 0.2 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup> Adverse reproductive effect	TWA: 5 mg/m <sup>3</sup> TWA: 0.02 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	-

Chemical Name	Newfoundland OEL	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>
CALCINED KAOLIN CLAY 66402-68-4	-	-	TWA: 5 mg/m <sup>3</sup> TWA: 0.02 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	-

Chemical Name	Ontario OEL	Prince Edward Island OEL	Quebec OEL	Saskatchewan OEL	Yukon OEL
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>	STEL: 20 mg/m <sup>3</sup> TWA: 30 mppcf TWA: 10 mg/m <sup>3</sup>
CALCINED KAOLIN CLAY 66402-68-4	TWA: 5 mg/m <sup>3</sup> TWA: 0.02 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> TWA: 0.02 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	-	TWA: 5 mg/m <sup>3</sup>

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

- Eye/face protection** Wear safety glasses with side shields (or goggles).
- Skin and body protection** Wear protective gloves and protective clothing.
- Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	liquid	<b>Odor</b>	Slight
<b>Appearance</b>	viscous	<b>Odor threshold</b>	No information available
<b>Color</b>	colored		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	7	
<b>Melting point/freezing point</b>	No information available	
<b>Boiling point / boiling range</b>	100 °C / 212 °F	
<b>Flash point</b>	100 °C / 212 °F	
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No information available	
<b>Lower flammability limit:</b>	No information available	
<b>Vapor pressure</b>	No information available	
<b>Vapor density</b>	No information available	
<b>Specific Gravity</b>	1.25	
<b>Water solubility</b>	Soluble in water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	No information available	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**  
No data available

**Chemical stability**  
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**  
None under normal processing.

**Conditions to avoid**  
Extremes of temperature and direct sunlight.

**Incompatible materials**  
None known based on information supplied.

**Hazardous Decomposition Products**  
None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information** No data available

**Inhalation** No data available.

**Eye contact** No data available.

**Skin contact** No data available.

**Ingestion** No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
TITANIUM DIOXIDE 13463-67-7	> 10000 mg/kg ( Rat )	-	-
DIETHYLENE GLYCOL 111-46-6	= 12565 mg/kg ( Rat )	= 11890 mg/kg ( Rabbit )	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
TITANIUM DIOXIDE 13463-67-7	-	Group 2B	-	X

*ACGIH (American Conference of Governmental Industrial Hygienists)*  
*A3 - Animal Carcinogen*  
*IARC (International Agency for Research on Cancer)*  
*Group 2B - Possibly Carcinogenic to Humans*  
*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*  
*X - Present*

**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organ Effects** Lungs, Respiratory system, Skin.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

**ATEmix (oral)** 7534 mg/kg  
**ATEmix (dermal)** No information available  
**ATEmix (inhalation-gas)** No information available  
**ATEmix (inhalation-dust/mist)** No information available  
**ATEmix (inhalation-vapor)** No information available

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

19.6 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not reuse container.

**US EPA Waste Number**

U122

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
FORMALDEHYDE 50-00-0	U122	Included in waste streams: K009, K010, K038, K040, K156, K157	-	U122

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
CALCINED KAOLIN CLAY 66402-68-4	Toxic

**14. TRANSPORT INFORMATION**

<b><u>DOT</u></b>	Not regulated
<b><u>TDG</u></b>	Not regulated
<b><u>MEX</u></b>	Not regulated
<b><u>ICAO (air)</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated
<b><u>IMDG</u></b>	Not regulated
<b><u>RID</u></b>	Not regulated
<b><u>ADR</u></b>	Not regulated
<b><u>ADN</u></b>	Not regulated



**15. REGULATORY INFORMATION**

**International Inventories**                      **On Inventory (Yes/No)**

<b>TSCA</b>	Yes
<b>DSL/NDSL</b>	Yes
<b>EINECS/ELINCS</b>	Yes
<b>ENCS</b>	Yes
<b>IECSC</b>	Yes
<b>KECL</b>	Yes
<b>PICCS</b>	Yes
<b>AICS</b>	Yes

**Legend:**

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
CALCINED KAOLIN CLAY - 66402-68-4	1.0

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
CALCINED KAOLIN CLAY 66402-68-4	-	X	-	-

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Proposition 65
CARBON BLACK - 1333-86-4	Carcinogen
FORMALDEHYDE - 50-00-0	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
CALCINED KAOLIN CLAY	X	-	X

66402-68-4			
CARBON BLACK 1333-86-4	X	X	X
FORMALDEHYDE 50-00-0	X	X	X
AMMONIUM HYDROXIDE 1336-21-6	X	X	X
3,5,7-TRIAZA-1-AZONIATRICYCL O[3.3.1.13,7]DECANE,1- 4080-31-3	X	-	-

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	Health hazards 1	Flammability 1	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 1	Flammability 1	Physical hazards 0	Personal protection B

Issue Date 01-Jun-2015  
 Revision Date 09-Jan-2018  
 Revision Note  
 SDS sections updated 4 7 16

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet